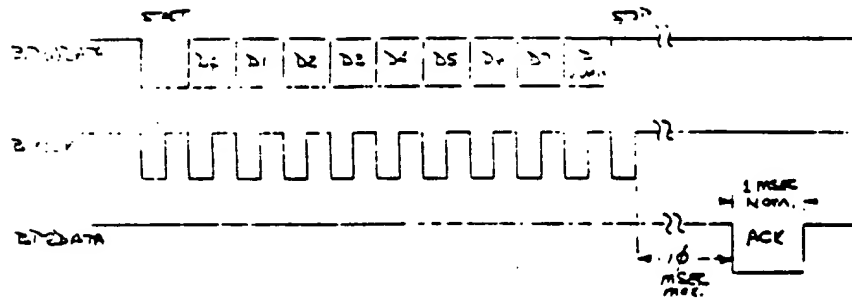
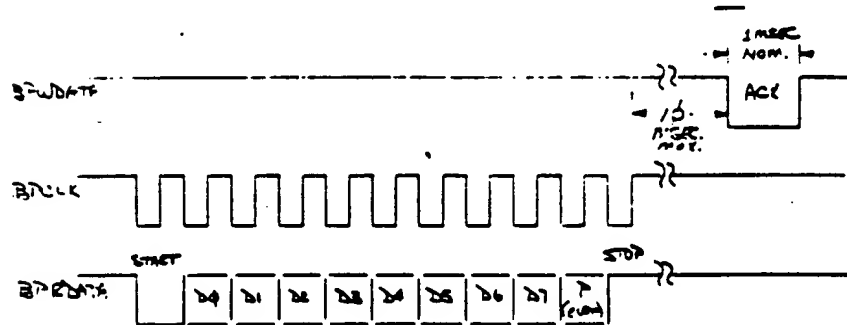


APPENDIX B

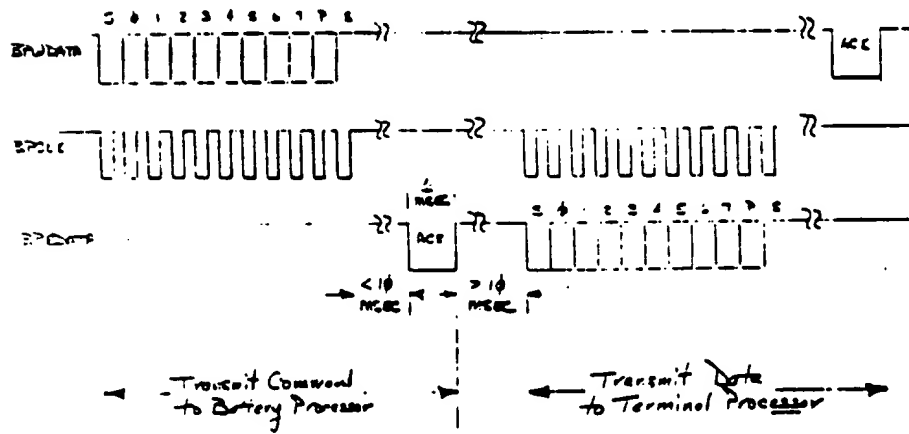
STEVEN E. KOENIG
 APPLICATION FOR PATENT "BATTERY
 CONDITIONING SYSTEM HAVING
 COMMUNICATION WITH BATTERY
 PARAMETER MEMORY MEANS IN
 CONJUNCTION WITH BATTERY
 CONDITIONING" ATTY. DOCKET 5717-Y



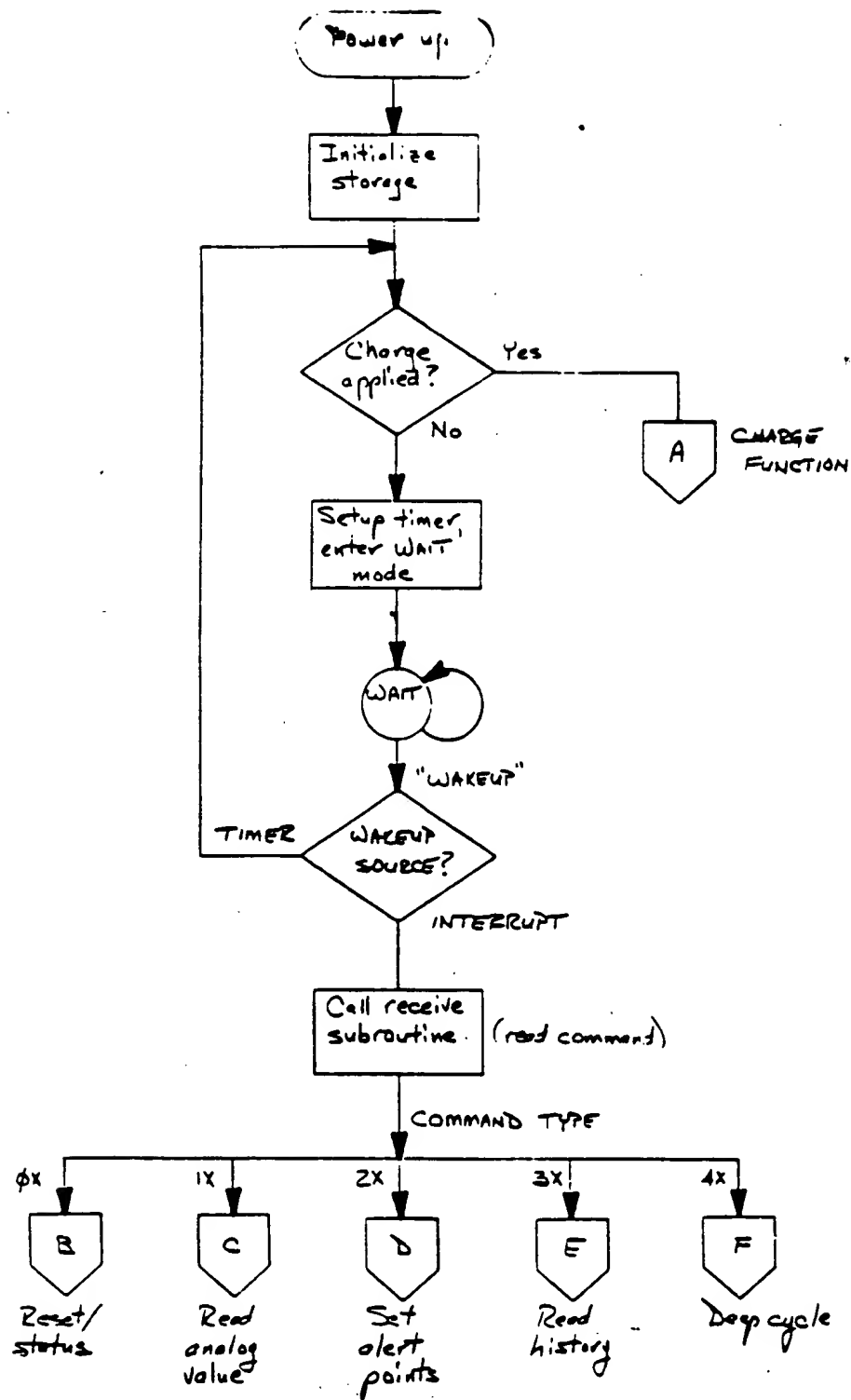
Terminal to Battery Processor Communication

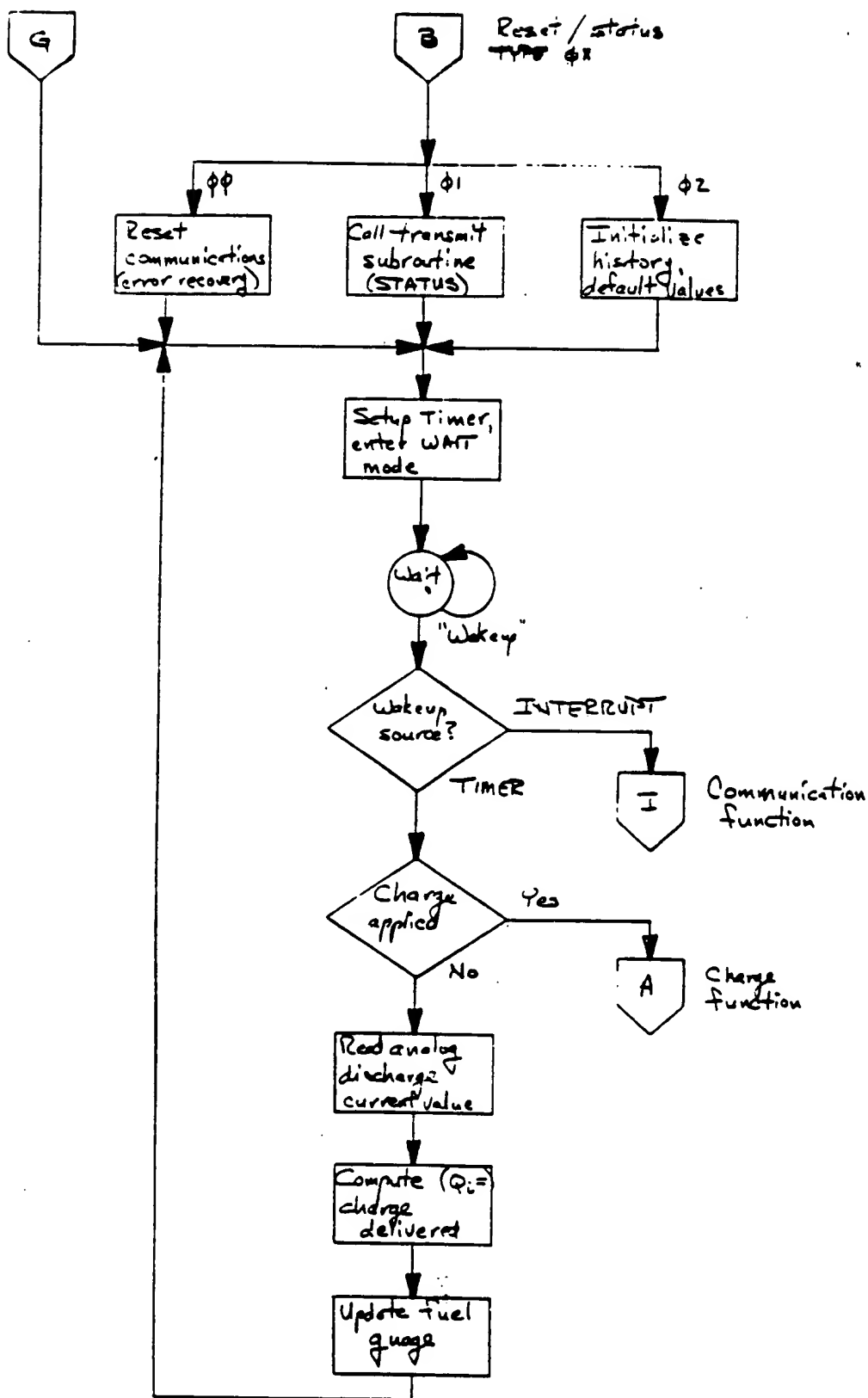


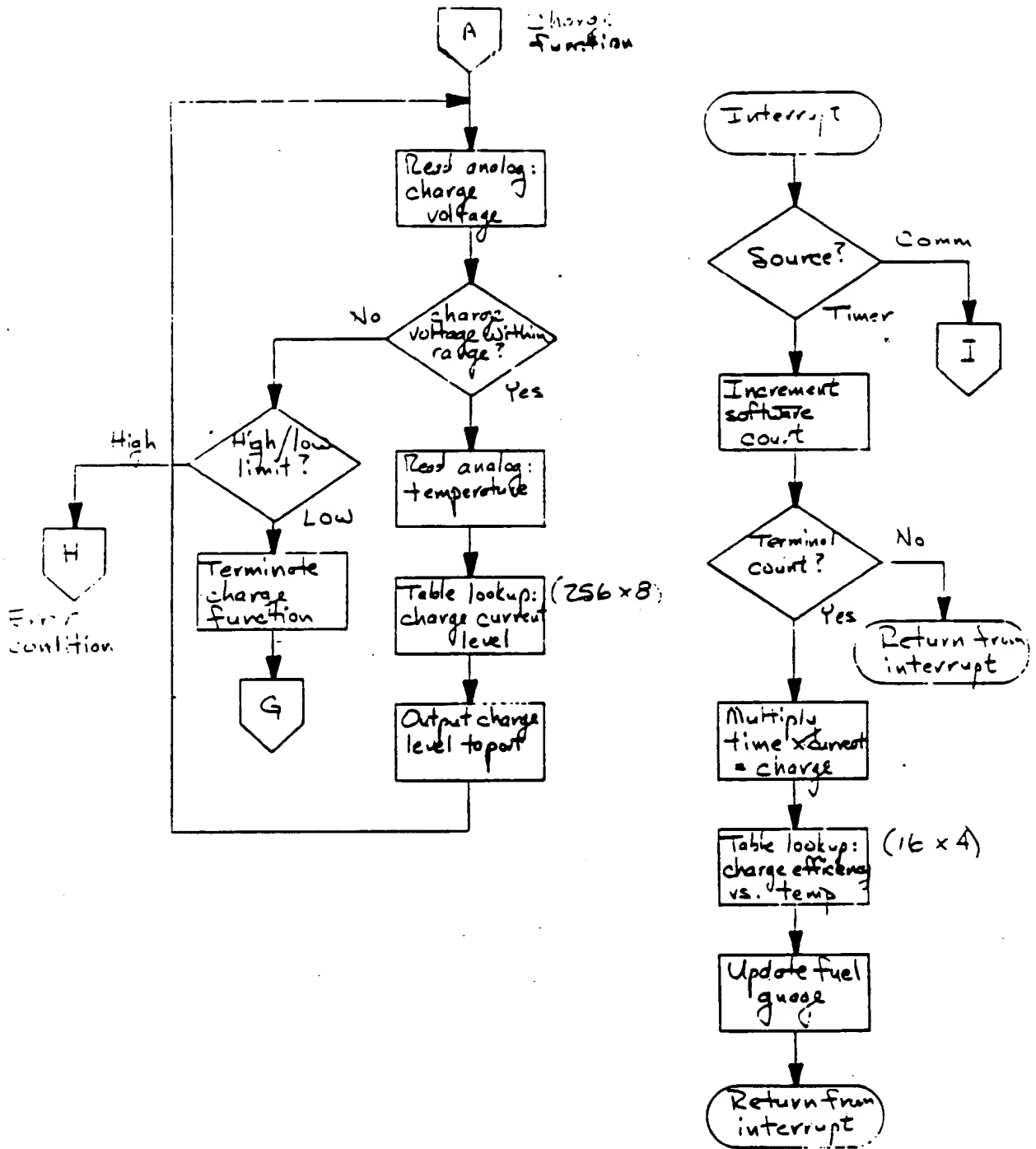
Battery Processor to Terminal Communication



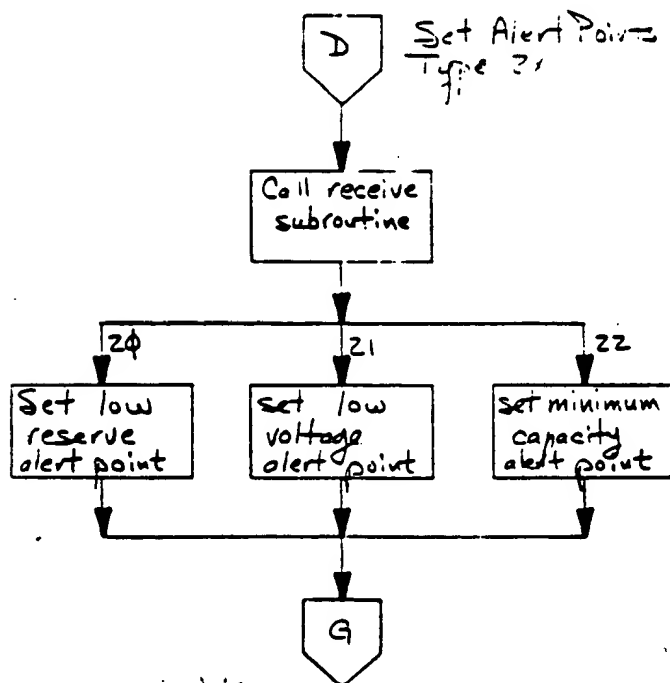
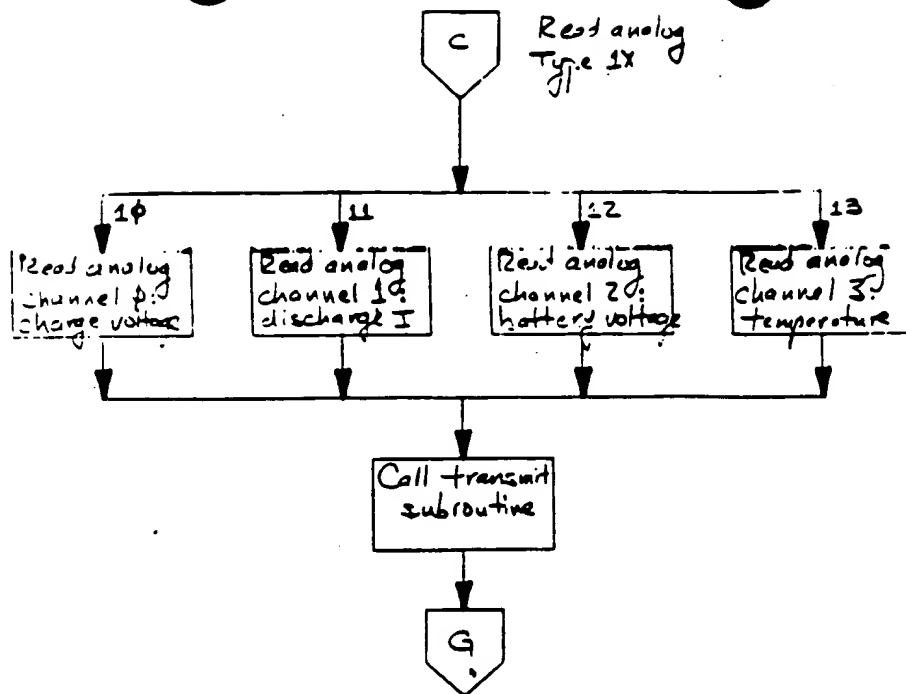
Command/Response Communication Protocol

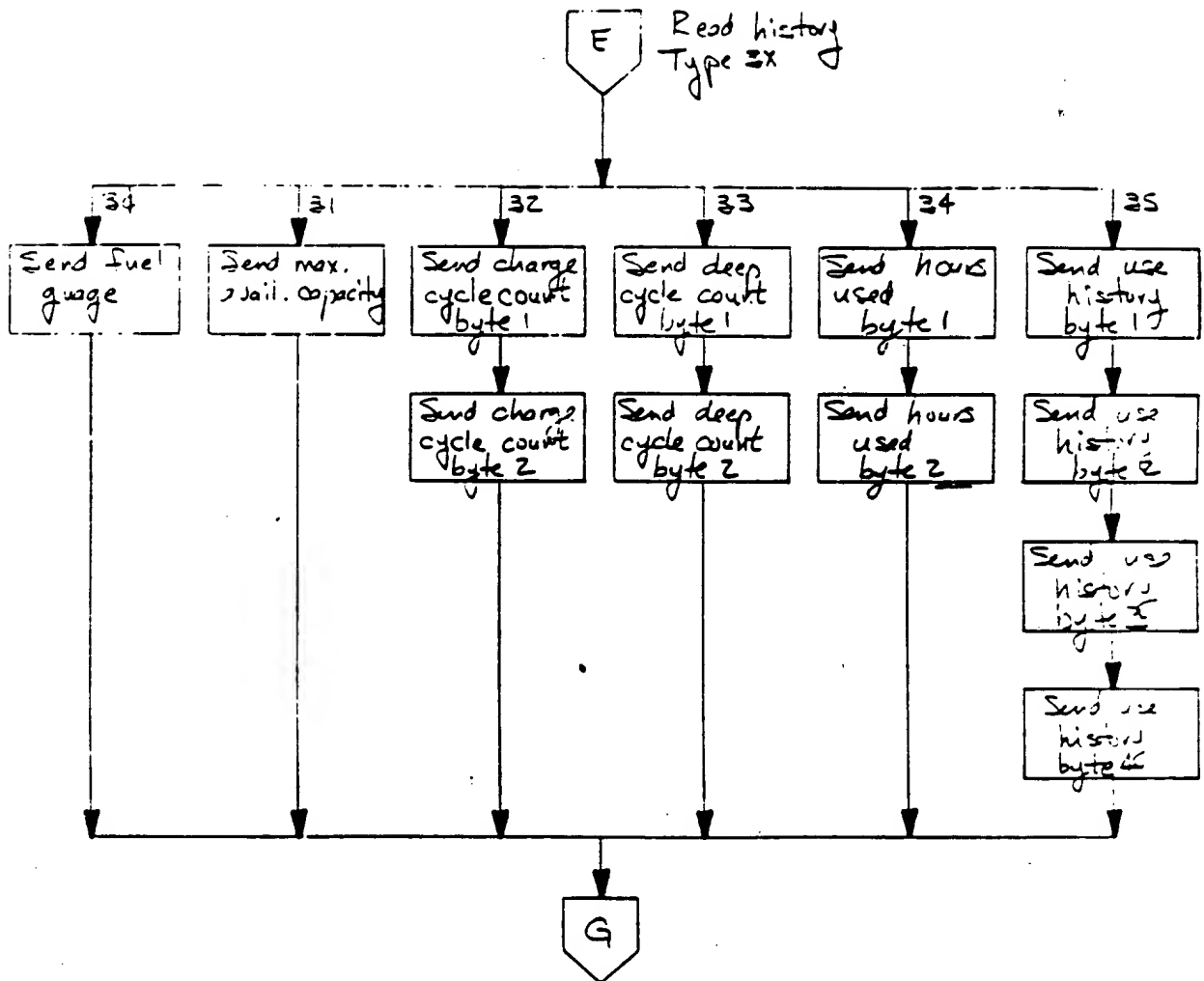


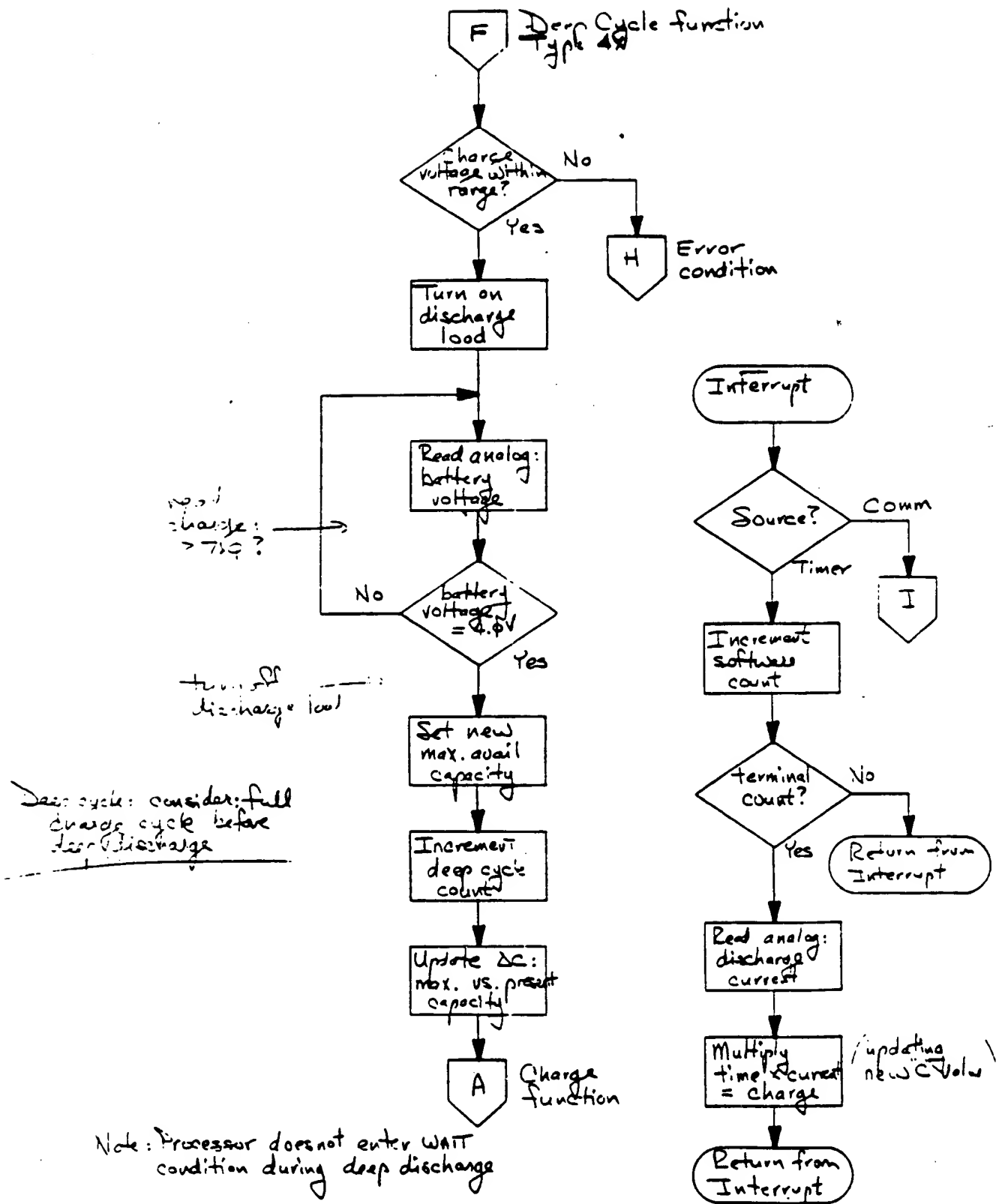


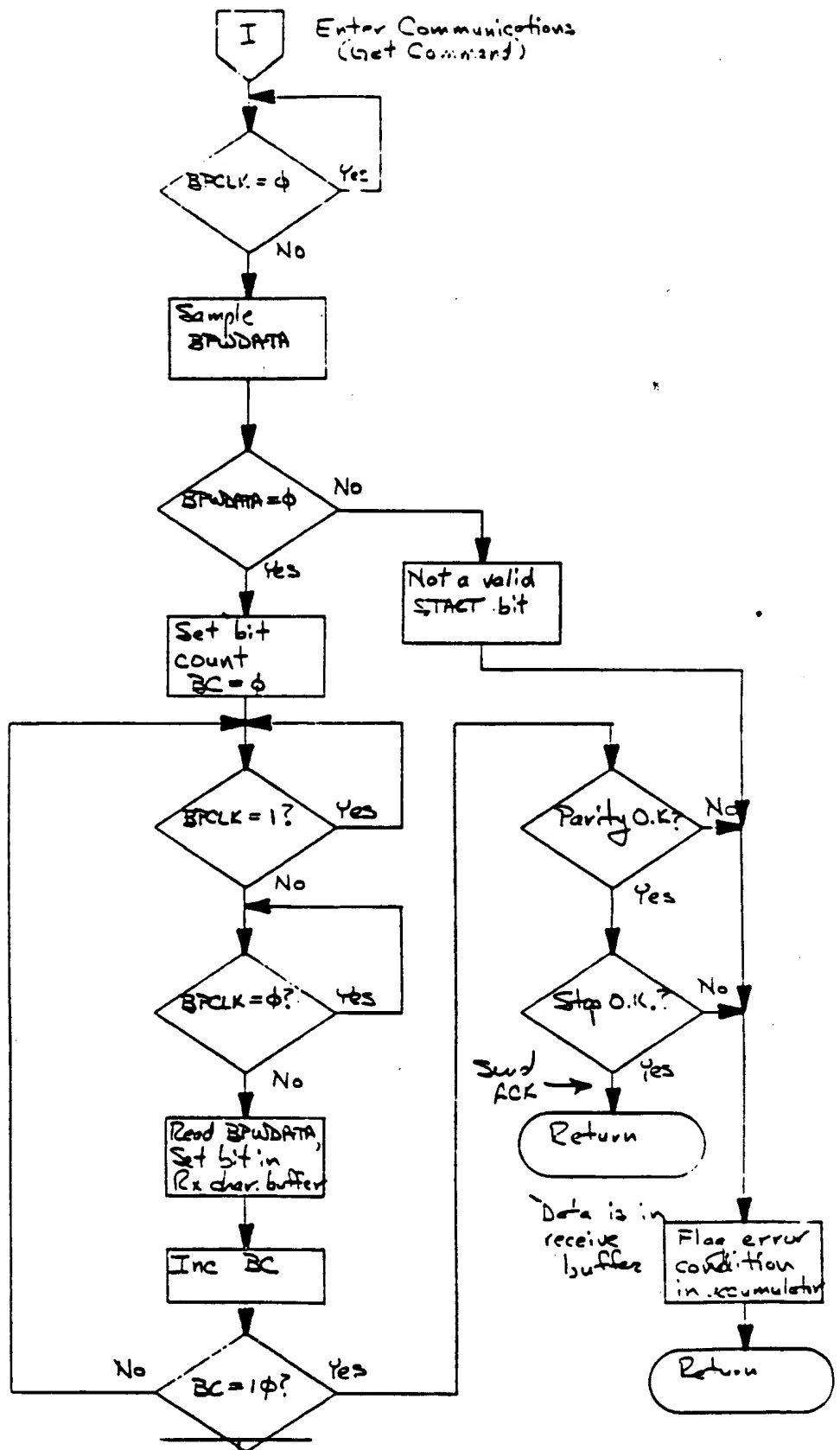


Note: Processor does not enter WAIT condition during charge.



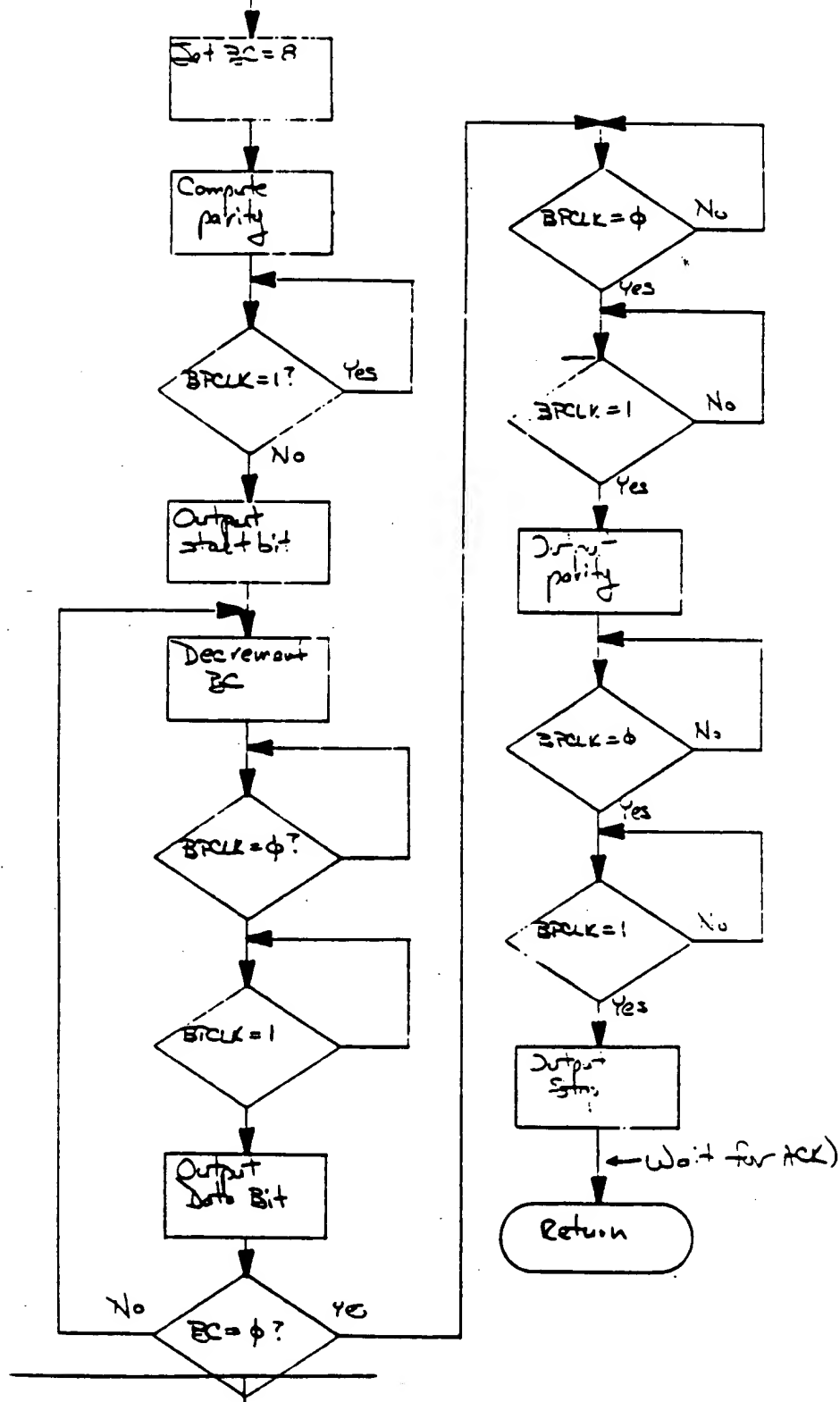






(Enter)

Transmit subroutine
This is in Tx Buffer



Charge level lookup table:

Input variables:

1. Temperature
2. Charge voltage
3. Fuel gauge

1. Temperature: table increments of $4^{\circ}\text{C} \times 16 \text{ steps} = 64^{\circ}\text{C}$, -14°C to $+50^{\circ}\text{C}$
temperatures below -14°C use -14°C value
temperatures above $+50^{\circ}\text{C}$ use $+50^{\circ}\text{C}$ value

2. Charge voltage: table increments of $1.28 \text{ volts} \times 8 \text{ steps} = 10.24 \text{ Volts}$
 $7.0 \text{ V} < V_{\text{CHG}} < 17.24 \text{ V}$

voltages below 7 volts or above 17.24 volts will cause the charge level to be turned off and an error condition to be transmitted to the terminal processor

3. Fuel gauge: 4 steps:

- 0-25%
- 25-50%
- 50-75%
- 75-100%

TABLE OUTPUT: 4 bits, binary weighted
charge level = 32 ma/step
 $0 \leq I_{\text{CHG}} \leq 480 \text{ ma}$

TABLE SIZE:

$16 \times 8 \times 2 = 256 \text{ Bytes}$

①	②	③
Temp	Chg voltage	%C (4 nibbles)